



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Blackwell, et al.

Application No.: 09/900,415

Filed: July 6, 2001

Title: EXTERIOR WINDOW COVERINGS

Attorney Docket No.: 2111.001

Group Art Unit: 3635

Examiner: Yvonne Michele Horton

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION UNDER 37 CFR 1.132

This is the declaration of Harry Rembert.

1. My name is Harry Rembert. I am a citizen and resident of the State of South Carolina, United States of America.

2. I am the inventor of the above-referenced invention.

3. I am the owner of a company that produces shutters and similar window coverings for houses. I am engaged full time in the design, production and sale of shutters and similar window coverings and protection devices. I have been involved in the design and construction of shutters for 17 1/2 years. Much of my Company's market is located in areas of Florida, Georgia, South Carolina, and North Carolina that are subjected to hurricanes. Accordingly, there is a need for shutters that are both decorative and functional, and can be used to cover windows during hurricanes.

4. My Company does not produce window glass, nor would one skilled in the art of producing shutters, which are typically formed with material such as wood and polyvinyl chloride, look to the glass or window arts for instruction on producing shutters.

5. The production of shutters and window coverings is in the nature of carpentry. Wood and polyvinyl chloride are cut, milled and drilled. The production of glass is a vastly different art. Glass is not formed by carpentry methods.

6. ASTM has developed standards for building materials, including doors, shutters, and the like, that relate to the protection of the buildings or structures during storms and hurricanes. During hurricanes, windows and doors, and other openings, are subjected to missiles driven at very high rates of speed. Many of these missiles are the result of nearby buildings being torn apart by hurricane force winds, and the tornados that hurricanes spawn. For example, the test for compliance with ASTM E1886 uses two inch by four inch pieces of wood that are driven at high rates of speed.

6. In the prior art, shutters are typically made of wood or polyvinyl chloride. However, neither wood nor polyvinyl chloride shutters formed of a single layer, as is most commonly done in the prior art, will pass ASTM E1886 or ASTM E1996.

7. We constructed a shutter having three planes of material. The three planes of material are bonded together by an adhesive. However, even the use of multiple layers of material did not yield the strength results that were required for ASTM standards. We found that the use of vertical stiles extending along the edges of the shutters in addition to the three planes of material, we were able to obtain the strength that is required to meet ASTM standards. The stiles hold the three layers of material together, and add strength. The vertical stiles contact the first, or outer plane of material, the second, or other outer layer of material and force them against the third layer, or core, to form a shutter comprised of a sandwich material. The stile, by holding the three layers of material, adds strength, and this combination led to unexpected results, which allowed us to pass the ASTM standard E1886, ASTM standard E1996, and ASTM standard E330, with this structure. Evidence of this compliance is shown in the attachment from Hurricane Testing Laboratory, Inc., which is attached hereto and incorporated herein by reference.

8. I have reviewed the patent references relied upon by the Examiner, and particularly the *Goldhaber*, *Clock et al.* and *Freeman* references. The window covering for exterior use as defined by Claim 33 of the above referenced patent application is not taught by the prior art, and was not heretofore known.

9. The *Goldhaber* device does not teach a multiple layer structure. Further, *Goldhaber* teaches glazing, that is, the window itself, and not a shutter or other cover for a window. *Goldhaber* does not teach the use of stiles to hold three layers of material together. *Goldhaber* does not recognize that extra strength and missile resistance can be obtained through the use of at least three layers and opposing vertical stiles that wrap around the edges of the multiple layers.

10. *Clock, et al.* relates to safety glass. *Freeman* also relates to windshield. One skilled in the art of window coverings would not look to the glass/windshield arts to find suggestion or motivation for building a stronger window covering or shutter. However, in any event, *Clock, et al.* do not teach or suggest the use of opposing vertical stiles that wrap around the edges of at least three planes of material to hold the planes of material together to yield high strength.

11. Our preferred core is a thermoplastic material, which may be polycarbonate. This core, when held between planes of material by adhesive bonding, which are preferred to be polyvinyl chloride, but could be wood, yield unexpected strength and resistance to wind driven objects and missiles, when the three planes of material are held together by the opposing generally vertical stiles.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

February ^{TL}14, 2005


Harry Rembert

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HURRICANE TEST LABORATORY, INC.
TESTING AND EVALUATION SOLUTIONS
www.htltest.com

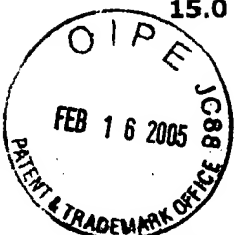
Report #: 0315-1024-02
0315-1110-02
Test Date: 10/21-11/15/02
Report Expires: 12/18/07
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MISCELLANEOUS INFORMATION

15.0

CERTIFICATION & DISCLAIMER STATEMENT:

The test and the results summarized in this test report were conducted in accordance with the specifications of the applicable codes, standards & test methods listed below by the Hurricane Test Laboratory, Inc. located at 6655 Garden Road, Riviera Beach, FL 33404. This report is only intended for the use of the entity named in section 1.0 of this report. The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the referenced specification.



16.0

APPLICABLE CODES, STANDARDS & TEST METHODS:

ASTM E330 - Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.

ASTM E1886 - Standard Test Method for Performance of Exterior Windows, Curtain Walls, Doors and Storm Shutters Impacted by Missiles(s) and Exposed to Cyclic Pressure Differentials.

ASTM E1996 - Standard Specification for Performance of Exterior Walls, Glazed Curtain Walls, Doors, and Storm Shutters Impacted by Windborne Debris in Hurricanes

17.0

LIST OF OFFICIAL OBSERVERS:

Vinu J. Abraham, P.E. - HTL, General Manager
José E. Colón, E.I. - HTL, Engineering Group - Test Services
Ron Nixon Sr. - HTL, Test Team Supervisor
Frank Hughs - HTL, Test Team
Harry Rembert - NEW HORIZON SHUTTERS

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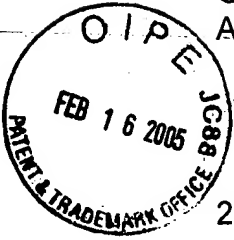
ENGINEER OF RECORD

12/18/02

Vinu J. Abraham, P.E.

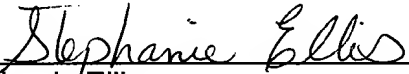
E1024 & E3270

Application No.: 09/900,415
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CERTIFICATE OF MAILING

I hereby certify that this Response to the Official Action dated November 12, 2004, and Post Card are being deposited with the United States Postal Service in an envelope with sufficient first class postage thereon, addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 14th day of February 2005.



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